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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/605,045

09/03/2003

Shao-Tsu Kung

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12/14/2005

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION

P.O. BOX 506

MERRIFIELD, VA 22116

EXAMINER

PERVAN, MICHAEL

ART UNIT

PAPER NUMBER

2677

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/605,045 | KUNG ET AL. | |
| | Examiner | Art Unit | |
| | Michael Pervan | 2677 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/3/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 6,574,095) in view of Kim (US 2003/0025689).

In regards to claim 1, Suzuki discloses a method for cooperatively controlling a touchpad and a keyboard of a computing device, the method comprising: detecting for an event of at least a key of the keyboard, key events including a make even executed when the key is depressed and a break event executed when the key is released (col. 2, lines 21-27), deactivating the touchpad upon detection of the make event (col. 2, lines 21-27) and reactivating the touchpad immediately after a deactivation interval has elapsed (col. 2, lines 28-37); wherein the touchpad is normally activated. Suzuki does not disclose deactivating the touchpad upon detection of the break event when the touchpad is not receiving input.

Kim discloses deactivating the touchpad upon detection of the break event when the touchpad is not receiving input (paragraph 50; as long as a key is not pressed after a break event, then the break event is still being detected and if no input is given to the touchpad or a key then the device goes into hibernation and deactivates the touchpad along with most other components). It would have been obvious at the time of invention

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to modify Suzuki with the teachings of Kim because it would conserve power, which is especially vital in mobile devices.

In regards to claim 5, Suzuki discloses setting the length of the deactivation interval according to the make or break event being detected (col. 2, lines 21-37).

3. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Kim in further view of Zirul et al (US 2002/0098874).

In regards to claim 2, Suzuki as modified does not disclose detecting for a repeat event that is executed while a key is depressed for longer than a repeat threshold time and reactivating the touchpad upon detection of the repeat event.

Zirul discloses detecting for a repeat event that is executed while a key is depressed for longer than a repeat threshold time and reactivating the touchpad upon detection of the repeat event (paragraph 40; once the phone is on the touchpad becomes reactivated). It would have been obvious at the time of invention to modify Suzuki as modified with the teachings of Zirul because it gives the user the ability to activate the touchpad prior to the end of the deactivation interval.

In regards to claim 3, Suzuki as modified discloses activating a timer upon detection of the make or break event (col. 2, lines 21-37). Suzuki as modified does not disclose deactivating the timer upon detection of the repeat event.

Zirul discloses deactivating the timer upon detection of the repeat event (paragraph 40; once turned off the timer is turned off as well and once turned back on the timer would still be disabled since no make or break event has been detected). It would have been obvious at the time of invention to modify Suzuki as modified with the

teachings of Zirul since the timer activates the touchpad upon completion and the since the touchpad has already been activated there is no need to have the timer continue.

In regards to claim 4, Suzuki as modified does not disclose the deactivation interval is equal to the repeat threshold time.

Since the specification does not provide a reason as to the benefit of having the deactivation interval be equal to the repeat threshold time, the examiner views this as an obvious designers choice.

4. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow et al (US 2003/0107557) in view of Suzuki.

In regards to claim 6, Liebenow discloses a housing 10 (see Figure 1), a processor 21 (see Figure 2a), memory fixed in the housing (paragraph 18), a keyboard connected to the processor 19 (see Figure 2a), a touchpad connected to the processor 18 (see Figure 2a) and a program stored in the memory and executable by the processor for performing the following controls (paragraphs 23-24; drivers are a type of program that allows a device to communicate with a computer): deactivating the touchpad. Liebenow does not disclose a timer, deactivating the touchpad for a deactivation interval as measured by a timer, the deactivation interval beginning when a key of the keyboard is depressed or when a key is released while the touchpad is not receiving input and activating the touchpad when the key depressed is held depressed for longer than a repeat threshold time and when the deactivation interval expires.

Suzuki discloses a timer (col. 2, line 18), deactivating the touchpad for a deactivation interval as measured by a timer (col. 2, lines 28-37), the deactivation

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interval beginning when a key of the keyboard is depressed or when a key is released while the touchpad is not receiving input (col. 2, lines 28-37) and activating the touchpad when the key depressed is held depressed for longer than a repeat threshold time and when the deactivation interval expires (col. 2, lines 28-37). It would have been obvious at the time of invention to modify Liebenow with the teachings of Suzuki because the use of a timer gives the user the ability to change the deactivation interval and the repeat interval to suit their needs.

In regards to claim 7, Liebenow discloses memory as a random-access memory (paragraph 18).

In regards to claim 8, Liebenow discloses memory as a read-only memory (paragraph 18).

In regards to claim 9, Liebenow discloses a display device connected to the processor for outputting information relating to input received by the keyboard and touchpad (paragraph 19).

In regards to claim 10, Liebenow discloses the touchpad being fixed in the housing and electrically connected to the processor (see Figures 1:16 and 2a:18).

In regards to claim 11, Liebenow discloses the touchpad being installed in a second housing and electrically connected or wirelessly connected to the processor (paragraph 20).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art (Chen US 5,886,686) is deemed relevant since it

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discusses a touchpad being in a second housing and electrically connected to the processor. The prior art (Ogura et al US 6,037,929) is deemed relevant since it discusses detecting a key and a timer. The prior art (Nagao US 6,532,003) is deemed relevant since it discusses detecting a key. The prior art (Anderson US 2001/0005199) is deemed relevant since it discusses detecting a key and housing. The prior art (Rudd US 2002/0180704) is deemed relevant since it discusses detecting a key, deactivating a touchpad after detection of a key and a timer.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVP

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Nov. 29, 2005

AMR A. AWAD
PRIMARY EXAMINER

Amr A. Awad